

S/N 10/053,514
AMENDMENT

ATTY DOCKET NO. 0212-0001

REMARKS

This amendment is in response to the office action mailed May 27, 2003 for the above-identified patent application, directed to an agricultural combine cooling package.

On behalf of Applicant, the undersigned agent thanks the Examiner for courtesies extended during the telephone interview of June 26, 2003.

Claims 1-8 stand rejected under 35 U.S.C. §§ 102 and 103. In addition, the Examiner has objected to the specification and the drawings. The claims and specification are amended as shown above. Corrected drawings are submitted with the response to overcome the objections to the drawings.

The objections and rejections are discussed in generally the same order as in the office action.

Drawings

The Examiner has objected to the drawings because four reference signs appear to point towards a single element in FIG. 4, and under 37 CFR 1.84(p)(5) because the drawings do not include reference signs described in the description.

Figure 4 has been corrected to show the differences between reference signs 70, 72, 74 and 76. Reference signs 70 and 72 refer to the lips of radiator 20, and reference signs 74 and 76 refer to the lips of charge air cooler 22 (Specification p. 6, l. 3-7).

Reference signs that have been added to the figures include reference sign 42 for a sealing flange in FIGS. 1 and 3, reference sign 50 for the downstream face of radiator 20 and reference sign 60 for the charge air cooler downstream face in FIG. 4, and reference sign 104 for the gap between the subassembly and the frame in FIG. 3. Reference sign 106 also refers to the same gap between the subassembly and the frame as reference sign 104, and has therefore been removed from the specification.

The corrections to the drawings add no new matter under 35 U.S.C. § 132 because they are described in the specification or shown in the figures and were therefore included in the original application as filed.

Specification

The Abstract and the Specification stand objected to for informalities and errors and for an allegedly improper incorporation by reference of a co-pending application.

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The Abstract has been amended as shown above to remove informalities. The error on p. 3, l. 3-4 has been corrected by the amendment shown above.

The incorporation by reference of the co-pending application is proper because the reference includes identifying information other than the Attorney Docket number. As stated in the original specification, p. 9, l. 6-7, the co-pending patent application with the Attorney Docket # 0212-0002 was filed "contemporary herewith" the above identified application, i.e. October 25, 2001. The application with the Attorney Docket 0212-0001 filed on October 25, 2001 is now application Serial No. 10/053,515. The specification has been amended as shown above to identify this application. The incorporation of this matter is proper because the original application unambiguously identified the subject matter by attorney docket number and filing date.

Claim Rejections – 35 U.S.C. § 112

Turning now to the claim rejection under Section 112, paragraph 2, claim 7 stands rejected for alleged indefiniteness.

Claims 7 has been amended as shown above to more clearly point out and distinctly claim that which Applicants regard as their invention by clearly indicating which step is encompassed by the limitation of releasable connecting. Accordingly, it is respectfully requested that the rejection be reconsidered and withdrawn.

Claim Rejections – 35 U.S.C. § 102

Turning now to the claim rejections as to anticipation under Section 102, claims 1-4, 6 and 7 stand rejected for alleged lack of novelty.

Claims 1 and 2

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Ghiani et al. (U.S. Patent 4,997,033). Ghiani discloses a connection between an air-to-water cooler 1 and an air-to-air cooler 2

Claim 1, as amended, is directed to a novel subassembly of a radiator with a face and a charge air cooler with a face, wherein the charge air cooler is connected to the radiator to form a subassembly face comprising the radiator face and the charge air cooler face and a to form a seal between the radiator and the charge air cooler, whereby leak

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paths are eliminated between the radiator and the charge air cooler. Support for the amendment can be found in the Specification on p. 5, l. 3, 11, 22-23, and 25-28.

Amended claim 1 is patentable over Ghiani because, *inter alia*, Ghiani does not teach or suggest a subassembly for an agricultural combine having radiator with a face, a charge air cooler with a face connected to the radiator to form a subassembly face comprising the radiator face and the charge air cooler face and to form a seal between the radiator and the charge air cooler, whereby leak paths are eliminated between the radiator and the charge air cooler.

Claim 2 depends from amended claim 1, and is therefore patentable over Ghiani for at least the same reasons as amended claim 1. Further, Ghiani does not teach bolting between a radiator and a charge air cooler, as required by claim 2. Ghiani teaches away from using fasteners because Ghiani's connection is designed so that "no tools at all are required for assembling the air to air cooler 2" (Ghiani, col. 4, l. 16-17).

Therefore, Ghiani neither teaches nor suggests Applicants' invention as claimed in claims 1 and 2, as amended, accordingly, it is respectfully requested that the rejection be reconsidered and withdrawn.

Claims 1 and 3

Claims 1 and 3 stand rejected under § 102(b) as allegedly anticipated by Williams (U.S. Patent 4,736,727). Williams discloses a shroud 86 with a portion angled inwardly to direct air, wherein the face of charge air cooler assembly 60 and the face of radiator assembly 44 are spaced from the inwardly angled portion, see FIG. 3

Amended claim 1 is patentable over Williams because, *inter alia*, Williams does not teach or suggest the claimed invention of a subassembly for use in an agricultural combine having a radiator with a face, a charge air cooler with a face connected to the radiator to form a subassembly face comprising the radiator face and the charge air cooler face and to form a seal between the radiator and the charge air cooler, whereby leak paths are eliminated between the radiator and the charge air cooler.

Claim 3, as amended, is directed to a cooling package for use in an agricultural combine having a frame defining an opening, with a flange extending inwardly into the opening, a radiator with a face, a charge air cooler with a face, wherein the radiator is connected to the charge air cooler in order to form a subassembly having a face with a

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perimeter, the subassembly face comprising the radiator face and the charge air cooler face, wherein the subassembly is mounted in the frame with a seal between the perimeter of the subassembly face and the flange, thereby eliminating leak paths around the perimeter of the subassembly face. Support for the amendment can be found in the Specification on p. 3, l. 14-15 and 18, p. 5, l. 3, 11 and 22-23, and p. 8, l. 4-5.

Amended claim 3 is patentable over Williams because, *inter alia*, Williams does not teach or suggest a cooling package for use in an agricultural combine having a frame defining an opening, with a flange extending inwardly into the opening, a radiator with a face, a charge air cooler with a face, wherein the radiator is connected to the charge air cooler in order to form a subassembly having a face with a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, wherein the subassembly is mounted in the frame with a seal between the perimeter of the subassembly face and the flange, thereby eliminating leak paths around the perimeter of the subassembly face, as required by claim 3.

Therefore, Williams neither teaches nor suggests Applicants' invention as claimed in claims 1 and 3, as amended, accordingly, it is respectfully requested that the rejection be reconsidered and withdrawn.

Claims 1-4, 6 and 7

Claims 1-4, 6 and 7 stand rejected under § 102(b) as allegedly anticipated by Hedeem (U.S. Patent 5,316,079). Hedeem discloses an "integrated heat exchanger" wherein radiator tubes 66 and charge air cooler tubes 72 are combined in the same heat exchanger 34.

Amended claim 1 is patentable over Hedeem because, *inter alia*, Hedeem does not teach or suggest a charge air cooler that is connected to a separate radiator to form a seal between the separate radiator and charge air cooler, as required by claim 1.

Amended claim 3 is patentable over Hedeem because, *inter alia*, Hedeem does not teach or suggest a cooling package for an agricultural combine having a frame defining an opening, with a flange extending inwardly into the opening, a radiator with a face, a separate charge air cooler with a face, wherein the radiator is connected to the charge air cooler in order to form a subassembly having a face with a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, wherein the subassembly

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is mounted in the frame with a seal between the perimeter of the subassembly face and the flange, thereby eliminating leak paths around the perimeter of the subassembly face, as required by amended claim 3.

Claims 2 and 4 depend from claims 1 and 3, respectively, and are therefore patentable over Hedeem for at least the same reasons as claims 1 and 3. Further, Hedeem does not teach or suggest a radiator and a charge air cooler each having sides with extending lips, wherein the lips are bolted together, as required in claims 2 and 4.

Claim 6, as amended, is directed to a method of manufacturing a cooling package for an agricultural combine having the steps of providing a frame defining an opening, attaching a flange to an inner surface of the frame so that the flange extends inwardly into the opening, providing a radiator with a face, providing a separate charge air cooler with a face, connecting the radiator to the charge air cooler to form a subassembly with a face having a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, mounting the subassembly in the opening of the frame, and sealing the perimeter of the subassembly face against the flange, thereby preventing leak paths around the perimeter of the subassembly face. Support for the amendment can be found in the Specification on p. 3, l. 14-15 and 18, p. 5, l. 3, 11 and 22-23, and p. 8, l. 4-5.

Amended claim 6 is patentable over Hedeem because, *inter alia*, Hedeem does not teach or suggest attaching a flange to an inner surface wall of a frame, the flange extending inwardly into an opening in the frame, connecting a radiator with a face and a separate charge air cooler with a face together to form a subassembly with a face having a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, mounting the subassembly in the frame, and sealing the perimeter of the subassembly face against the flange, thereby preventing leak paths around the perimeter of the subassembly face, as required in amended claim 6.

Claim 7 depends from claim 6, and is therefore patentable over Hedeem for at least the same reasons as claim 6. Further, as Hedeem does not teach connecting a radiator and charge air cooler, it does not teach a releasable connection of the radiator and the charge air cooler using nuts and bolts, as required by claim 7.

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Therefore, Hedeem neither teaches nor suggests Applicants' invention as claimed in claims 1-4, 6 and 7, as amended, accordingly, it is respectfully requested that the rejection be reconsidered and withdrawn.

Claims 1-4 and 7

Claims 1-4 and 7 are rejected under § 102(b) as being anticipated by Lakerdas et al. (U.S. Patent 5,660,149). Lakerdas discloses "a radiator 19 and an air conditioning condenser 21 disposed in tandem" (col. 3, l. 9-10) so that one heat exchanger is in front of the other, as shown in FIG. 1.

Amended claim 1 is patentable over Lakerdas because, *inter alia*, Lakerdas does not teach or suggest a subassembly for use in an agricultural combine having a radiator with a face, a charge air cooler with a face connected to the radiator to form a subassembly face comprising the radiator face and the charge air cooler face and to form a seal between the radiator and the charge air cooler, whereby leak paths are eliminated between the radiator and the charge air cooler.

Amended claim 3 is patentable over Lakerdas because, *inter alia*, Lakerdas does not teach or suggest a cooling package for an agricultural combine having a frame defining an opening, with a flange extending inwardly into the opening, a radiator with a face, a charge air cooler with a face, wherein the radiator is connected to the charge air cooler in order to form a subassembly having a face with a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, wherein the subassembly is mounted in the frame with a seal between the perimeter of the subassembly face and the flange, thereby eliminating leak paths around the perimeter of the subassembly face, as required by amended claim 3.

With regard to claims 2 and 4, the Examiner states that Lakerdas discloses modules that are "joined together in assembly by suitable joining means, such as fasteners" (col. 3, l. 7-8). Lakerdas, however, does not teach bolting of extended lips together to seal a radiator and charge air cooler to each other. Claims 2 and 4 depend from claims 1 and 3, respectively, and are therefore patentable over Lakerdas for at least the same reasons as claims 1 and 3. Further, Lakerdas does not teach a radiator and a charge air cooler having extended lips, and the radiator and the charge air cooler being connected by bolting the extended lips together, as required by claims 2 and 4.

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Regarding claim 7, Lakerdas does not teach or suggest attaching a flange to an inner surface wall of a frame, the flange extending inwardly into an opening in the frame, releasably connecting a radiator with a face and a charge air cooler with a face to form a subassembly with a face having a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, mounting the subassembly in the frame, and sealing the perimeter of the subassembly face against the flange, thereby preventing leak paths around the perimeter of the subassembly face.

Therefore, Lakerdas neither teaches nor suggests Applicants' invention as claimed in claims 1-4 and 7, as amended, accordingly, it is respectfully requested that the rejection be reconsidered and withdrawn.

Claim Rejections – 35 U.S.C. § 103

Turning now to the rejections of obviousness under section 103, claims 5, 7, and 8 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Lakerdas et al.

Amended claims 5 and 8 are patentable over Lakerdas because Lakerdas does not teach or suggest a cooling package for an agricultural combine having a frame defining an opening, with a flange extending inwardly into the opening, a radiator with a face, a charge air cooler with a face, wherein the radiator is connected to the charge air cooler in order to form a subassembly having a face with a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, wherein the subassembly is mounted in the frame with a seal between the perimeter of the subassembly face and the flange, thereby eliminating leak paths around the perimeter of the subassembly face, and, as admitted by the Examiner, Lakerdas does not teach a seal such as foam.

Regarding claim 7, Lakerdas does not teach or suggest attaching a flange to an inner surface wall of a frame, the flange extending inwardly into an opening in the frame, releasably connecting a radiator with a face and a charge air cooler with a face to form a subassembly with a face having a perimeter, the subassembly face comprising the radiator face and the charge air cooler face, mounting the subassembly in the frame, and sealing the perimeter of the subassembly face against the flange, thereby preventing leak paths around the perimeter of the subassembly face.